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REMARKS

Claims 1-14 are being cancelled, without any prejudice or disclaimer to the subject matter expressed therein, in lieu of new claims 15-39. The amendments herein do not introduce new matter within the meaning of 35 U.S.C. §132. Accordingly, entry of the amendments is respectfully requested.

1. Objection of Claims 3, 4, and 9

Claims 3, 4, and 9 have been cancelled rendering the objections thereof moot. Notwithstanding, Applicant respectfully believes new claims 15-39 obviate the current objections. Accordingly, Applicant respectfully requests the Examiner to withdraw the objection.

2. Rejection of Claims 1-14 Under 35 U.S.C. §112, 2nd Paragraph

Claims 1-14 have been cancelled rendering the rejection thereof moot. Notwithstanding, Applicant respectfully traverses the current rejection.

The Examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is whether the claim meets the threshold requirements of clarity and precision, and not whether more suitable language or modes of expression are available. Additionally, the Examiner should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness.

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See MPEP 2173 and 2173.02. "The requirement to 'distinctly' claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principle. . . . Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite." *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366, 71 USPQ2d 1081, 1089 (Fed. Cir. 2004).

In particular, Applicant's specification states on page 2, lines 26-30,

The high-molecular-weight propylene polymer has a melt mass-flow rate MFR (230/5) of from 0.3 to 1 g/10 min, preferably from 0.6 to 0.9 g/10 min and particularly preferably from 0.75 to 0.9 g/10 min. This melt mass-flow rate MFR is the amount of polymer which is extruded within a period of 10 minutes from the test apparatus standardized to ISO 1133 at a temperature of 230°C under a load of 5 kg.

Accordingly, Applicant respectfully believes one of ordinary skill in the art would appreciate the metes and bounds of new claims 15-39, and new claims 15-39 are novel and unobvious, and fully comply with 35 U.S.C. §112. As such, Applicant respectfully requests the rejection to be withdrawn.

3. Rejection of Claims 1-14 Under 35 U.S.C. §112, 2nd Paragraph

Claims 1-14 have been cancelled rendering the rejection thereof moot. Notwithstanding, Applicant respectfully traverses the current rejection.

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The Examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is whether the claim meets the threshold requirements of clarity and precision, and not whether more suitable language or modes of expression are available. Additionally, the Examiner should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. See MPEP 2173 and 2173.02. "The requirement to 'distinctly' claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principle. . . . Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite." *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366, 71 USPQ2d 1081, 1089 (Fed. Cir. 2004).

In particular, Applicant is currently claiming a thick-walled pipe comprising a diameter of at least 500 mm and a wall thickness of at least 28.4 mm, wherein the thick-walled pipe comprises a molding composition, the molding composition comprising:

- a high-molecular-weight propylene polymer comprising a melt mass-flow rate MFR of from 0.3 to 1 g/10 min. at 230°C and 5 kg; and
- 2 to 8% by weight of **B** modification crystallites;

(Emphasis added).

As such, Applicant is currently claiming a thick-walled pipe

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comprising a molding composition, wherein the molding composition comprises, at the very least, 2 to 8% by weight of β modification crystallites. Applicant respectfully believes one of ordinary skill in the art would appreciate the metes and bounds of new claims 15-39, and new claims 15-39 are novel and unobvious, and fully comply with 35 U.S.C. §112.

Therefore, Applicant respectfully requests the rejection to be withdrawn.

4. Rejection of Claims 12 and 13 Under 35 U.S.C. §112, 2nd

Paragraph

Claims 12 and 13 have been cancelled rendering the rejection thereof moot. As such, Applicant respectfully requests the rejection to be withdrawn.

5. Rejection of Claims 1-8 and 10-14 Under 35 U.S.C. §102(b)

Claims 1-8 and 10-14 have been cancelled rendering the rejection thereof moot. Notwithstanding, Applicant respectfully traverses the rejection.

In particular, for a reference to anticipate an invention, all of the elements of that invention must be present in the reference. The test for anticipation under section 102 is whether each and every element as set forth in the claims is found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. V. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

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The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989), (Emphasis added). The elements must also be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicant respectfully believes EP 0 278 470 (referred to herein as "Helberg, et al.") fails to disclose, teach, or suggest Applicant's currently claimed thick-walled pipe comprising a diameter of at least 500 mm and a wall thickness of at least 28.4 mm, wherein the thick-walled pipe comprises a molding composition, the molding composition comprising:

- a high-molecular-weight propylene polymer comprising a melt mass-flow rate MFR of from 0.3 to 1 g/10 min. at 230°C and 5 kg; and
- 2 to 8% by weight of β modification crystallites.

In addition to Helberg, et al. not disclosing, teaching, or suggesting Applicant's currently claimed thick-walled pipe, Applicant has found the molding compositions of the instant application unexpectedly comprise better processing properties during the extrusion of thick-walled pipes, in particular, thick-walled pipes comprising an external diameter of 500 mm or more, and a wall thickness greater than, or equal to, 28.4 mm. In particular, Example 4 in Applicant's specification demonstrates a thick-walled pipe comprising a high-molecular-weight random copolymer of the present application unexpectedly comprises a lower maximum isolated

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roughness depth (R_{max}), a lower average roughness depth (R_z), a lower arithmetic mean roughness (R_a), and a lower maximum roughness depth (R_t), as well as a higher measured time to failure at 95°C and 120°C, than that of a comparative thick-walled pipe comprising a high-molecular-weight random copolymer outlined in Example 7. Additionally, Example 11 demonstrates another comparative high-molecular-weight random copolymer could not even be extruded into a thick-walled pipe to perform the tests outlined in Examples 4 and 7.

See ATTACHMENT B.

Similarly, Examples 15 and 26 demonstrate a thick-walled pipe comprising a high-molecular-weight random copolymer of the present application both unexpectedly comprise a lower maximum isolated roughness depth (R_{max}), a lower average roughness depth (R_z), a lower arithmetic mean roughness (R_a), and a lower maximum roughness depth (R_t), as well as a higher measured time to failure at 95°C and 120°C, than that of a comparative thick-walled pipe comprising a high-molecular-weight random copolymer outlined in Examples 18 and 29, respectively. Additionally, other comparative high-molecular-weight random copolymer outlined in Examples 22 and 33 could not be extruded into a thick-walled pipe to perform the tests outlined in Examples 15 and 18, and 26 and 29, respectively.

Furthermore, Example 37 demonstrates a thick-walled pipe comprising a high-molecular-weight propylene homopolymer of the present application unexpectedly comprises a lower maximum isolated roughness depth (R_{max}), a lower average roughness depth (R_z), a lower

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arithmetic mean roughness (R_a), and a lower maximum roughness depth (R_t), as well as a higher measured time to failure at 95°C and 120°C, than that of a comparative thick-walled pipe comprising a high-molecular-weight propylene homopolymer outlined in Example 40. Additionally, another comparative high-molecular-weight random copolymer outlined in Example 44 could not be extruded into a thick-walled pipe to perform the tests outlined in Examples 37 and 40. See ATTACHMENT B. Accordingly, Applicant has unexpectedly found the molding compositions of the instant application comprise superior processing properties, and produce thick-walled pipes having superior smoothness, processibility, and toughness.

In light of the above, claims 15-39 are therefore believed to be patentable over Helberg, et al. As such, reconsideration and withdrawal of the rejection is requested.

6. Rejection of Claim 9 Under 35 U.S.C. §103(a)

Claim 9 has been cancelled rendering the rejection thereof moot. Notwithstanding, Applicant respectfully traverses the rejection.

Arguments *supra* regarding Helberg, et al. are incorporated herein by reference in their entirety.

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at

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issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

As outlined *supra*, Applicant has unexpectedly found the molding compositions of the instant application unexpectedly comprise better processing properties during the extrusion of thick-walled pipes, in particular, thick-walled pipes comprising an external diameter of 500 mm or more, and a wall thickness greater than or equal to 28.4 mm. See the arguments *supra*, and ATTACHMENT B.

Additionally, Application respectfully believes EP 0 177 961 (herein referred to as "Kathan, et al.") fails to remedy the deficiencies of Helberg, et al. Therefore, claims 15-39 are believed to be patentable over Helberg, et al. in view of Kathan, et al. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

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7. Rejection of Claims 1, 3, and 5 Under 35 U.S.C. §103(a)

Claims 1, 3, and 5 have been cancelled rendering the rejection thereof moot. Notwithstanding, Applicant respectfully traverses the rejection.

In particular, The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

Applicant respectfully believes U.S. Patent 5,681,922 (referred to herein as "Wolfschwenger, et al.") fails to disclose, teach, or suggest Applicant's currently claimed thick-walled pipe comprising a diameter of at least 500 mm and a wall thickness of at least 28.4

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mm, wherein the thick-walled pipe comprises a molding composition, the molding composition comprising:

- a high-molecular-weight propylene polymer comprising a melt mass-flow rate MFR of from 0.3 to 1 g/10 min. at 230°C and 5 kg; and
- 2 to 8% by weight of β modification crystallites.

In fact, as outlined *supra*, Applicant has found the molding compositions of the instant application unexpectedly comprise better processing properties during the extrusion of thick-walled pipes, in particular, thick-walled pipes comprising an external diameter of 500 mm or more, and a wall thickness greater than, or equal to, 28.4 mm. In particular, Example 4 in Applicant's specification demonstrates a thick-walled pipe comprising a high-molecular-weight random copolymer of the present application unexpectedly comprises a lower maximum isolated roughness depth (R_{max}), a lower average roughness depth (R_z), a lower arithmetic mean roughness (R_a), and a lower maximum roughness depth (R_t), as well as a higher measured time to failure at 95°C and 120°C, than that of a comparative thick-walled pipe comprising a high-molecular-weight random copolymer outlined in Example 7. Additionally, Example 11 demonstrates another comparative high-molecular-weight random copolymer could not even be extruded into a thick-walled pipe to perform the tests outlined in Examples 4 and 7. See ATTACHMENT B.

Similarly, Examples 15 and 26 demonstrate a thick-walled pipe comprising a high-molecular-weight random copolymer of the present

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application both unexpectedly comprise a lower maximum isolated roughness depth (R_{max}), a lower average roughness depth (R_z), a lower arithmetic mean roughness (R_a), and a lower maximum roughness depth (R_t), as well as a higher measured time to failure at 95°C and 120°C, than that of a comparative thick-walled pipe comprising a high-molecular-weight random copolymer outlined in Examples 18 and 29, respectively. Additionally, other comparative high-molecular-weight random copolymer outlined in Examples 22 and 33 could not be extruded into a thick-walled pipe to perform the tests outlined in Examples 15 and 18, and 26 and 29, respectively.

Furthermore, Example 37 demonstrates a thick-walled pipe comprising a high-molecular-weight propylene homopolymer of the present application unexpectedly comprises a lower maximum isolated roughness depth (R_{max}), a lower average roughness depth (R_z), a lower arithmetic mean roughness (R_a), and a lower maximum roughness depth (R_t), as well as a higher measured time to failure at 95°C and 120°C, than that of a comparative thick-walled pipe comprising a high-molecular-weight propylene homopolymer outlined in Example 40. Additionally, another comparative high-molecular-weight random copolymer outlined in Example 44 could not be extruded into a thick-walled pipe to perform the tests outlined in Examples 37 and 40. See ATTACHMENT B. Accordingly, Applicant has unexpectedly found the molding compositions of the instant application comprise superior processing properties, and produce thick-walled pipes having superior smoothness, processibility, and toughness.

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In light of the above, claims 15-39 are therefore believed to be patentable over Wolfschwenger, et al. As such, reconsideration and withdrawal of the rejection is requested.

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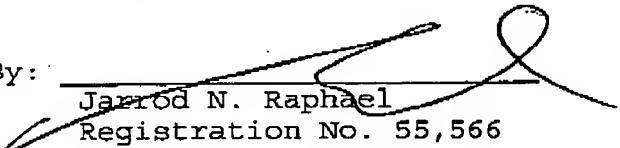
CONCLUSION

Based upon the above remarks, the presently claimed subject matter is believed to be novel and patentably distinguishable over the references of record. The Examiner is therefore respectfully requested to reconsider and withdraw all rejections, and allow all pending claims 15-39. Favorable action with an early allowance of the claims pending in this application is earnestly solicited.

The Examiner is welcomed to telephone the undersigned practitioner with any questions or comments.

Respectfully submitted,

By:


Jarrod N. Raphael

Registration No. 55,566

Customer No. 34872

Date: May 1, 2008

Delaware Corporate Center II
2 Righter Parkway, Suite 300
Wilmington, Delaware 19803
Telephone No.: 302-683-8176
Fax No.: 302-731-6408

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ATTACHMENT B

	R _{max} (mm)	R _z (mm)	R _a (mm)	R _t (mm)	95°C Time to Failure (h)	120°C Time to Failure (h)
Example 4	2.99	2.79	0.35	3.25	1825	321
Example 7 (Comparative)	12.13	9.83	1.31	12.18	1349	283
Example 11 (Comparative)	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
Example 15	4.61	4.10	0.72	4.70	3429	411
Example 18 (Comparative)	11.52	9.44	1.60	12.62	2765	378
Example 22 (Comparative)	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
Example 26	9.90	8.06	1.15	10.35	1465	327
Example 29 (Comparative)	11.33	8.83	1.34	12.05	1356	345
Example 33 (Comparative)	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
Example 37	3.25	2.59	0.34	3.25	1429	309
Example 40 (Comparative)	13.05	9.72	1.37	13.73	1287	274
Example 44 (Comparative)	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*

* Impossible to produce pipes to comply with DIN 8077